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COLD CATHODE ELECTRON FIELD EMITTERS BASED ON SILICON CARBIDE STRUCTURES

NIST Docket No. 12-009, US Patent Application No. US-2013-0187532

Abstract

Cold field electron emitters or "cold cathode" electron sources based on field emission have been continuously researched for decades, with resurgence in recent years motivated by advances in carbon nanostructures. This invention is a cold cathode field emission electron source capable of emission at levels comparable to thermal sources. These electron sources can be used in a wide range of applications, including microwave electronics and x-ray imaging for medicine and security. The technological applications enabled by the desirable properties of field-extracted cold electrons in comparison to heat induced electron emissions has drawn licensing interest for this technology.

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References

- Published Patent Application

Status of Availability

This invention is available for licensing exclusively or non-exclusively in any field of use.

Last Modified: 01/06/2016